



Llywodraeth Cymru
Welsh Government

**APPLICATION FOR FUNDING
TO SUPPORT LOCAL AUTHORITY
WELSH GOVERNMENT WARM HOMES – ARBED
PROJECTS
2017-2020**

Section A - General information

Area(s) being proposed	
Applicant details	
Local Authority	City & County of Swansea council
Address	Civic Centre, Oystermouth Rd, Swansea SA1 3SN
Contact details of lead officer: Name:	Mark Wade
Phone:	01792 635318
Email:	Mark.Wade@swansea.gov.uk
Number of dwellings to receive measures:	60

Number of fuel poor / low income households to be supported	15
<p>Number of properties by tenure <u>Please note we are looking for 70% owner occupied</u></p> <p>Owner occupied: 42 as a minimum (70%) Privately rented: 18 as a maximum (30%) Privately rented HMO: Nil Local authority housing: Nil Registered Social Landlord: Nil</p>	The scheme of 60 properties will have :
Timescale	
Is this a scheme for 2017/18:	Yes
If YES proposed start date:	July 2017
If NO proposed start date:	
Links to other projects/programmes if known	
WHQS and maintenance programme	No.
Vibrant and Viable Places programme	Scheme within Swansea City Centre V&VP 1 programme and boundary.
Links to any other programmes or initiatives e.g. Lift.	External Wall Insulation Scheme within Sandfields Housing Renewal Area programme.
Link to previous arbed scheme	In 2015-2016 we received WG Max ECO funding to support Phase 2 of the project.

Section B – Project Description

It is essential that you provide details of why you chose this area and property type.

What evidence are you using to support why this is the correct area to target as a fuel poverty scheme?

Please include the following information (not exhaustive):

Reasons for proposing the scheme.

Nature of the scheme – i.e. is it a cohesive scheme or a number of streets or a mixture of individual rural properties within a community.

Information on how the whole house assessment will be carried out

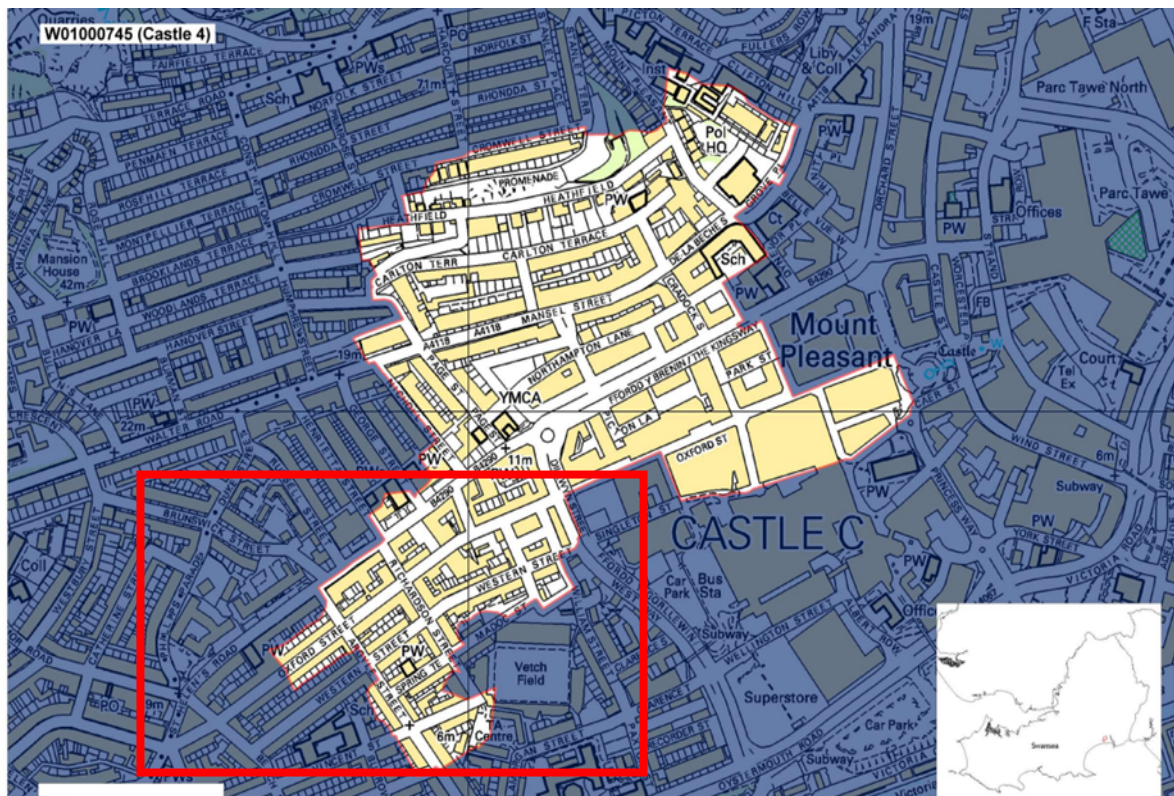
Information on how you have assessed the technical appropriateness of the measures

Information on how you plan to provide energy advice and benefit entitlement checks

Below is a map detailing the streets and blocks selected within the boundary of the Castle 4/8 Lower Super Output Areas (LSOAs), with the proposed scheme area outlined in red.

Castle 4 – Wales Index of Multiple Deprivation (WIMD) 356 = 18.6%, Income 368 = 19.2%

Castle 8 – WIMD 614 = 32% Income 607 = 31.8%



Project Proposal:

Our proposal is to provide a range of energy efficiency measures to homes on a number of streets and blocks in the Sandfields area. This scheme is within the Sandfields Renewal Area boundary, however the scheme and funding provided will be packaged as a standalone Welsh Government Warm Homes Arbed project.

If we are successful in this bid, Welsh Government Warm Homes Arbed funding will be solely used on Energy efficiency measures.

We will adopt a whole house approach and have identified the following energy efficiency measures as providing the greatest energy efficiency, saving, advice and income maximisation benefits;

- External Wall Insulation (EWI)
- Loft Insulation
- Energy Advice, Energy Behaviour Assistance,

Nature of Scheme:

This is a cohesive scheme; the 60 properties selected for this scheme are within streets and blocks in the Sandfields area of Swansea.

The properties selected in this bid have been identified by a detailed house condition study as requiring improvements to their energy efficiency, the properties prioritised based on condition on a worst first terraced block by block basis.

Rationale for Scheme:

We have considered a number of potential schemes within the County and feel that this scheme provides the greatest benefit across all bid requirements from a strategic perspective, and to householders themselves.

Characteristics of properties selected.

The Swansea Private Sector House Condition Survey 2010 identified a number of areas within Swansea as having pre1900 solid wall construction terraced hard to treat properties that would be suitable for energy efficiency improvement measures.

In 2012, the council commissioned the BRE to review this house condition survey data of 2010 and utilise their modelling data together with Welsh Index of Deprivation data to shortlist areas that needed energy efficiency measures and improvements to housing conditions. Sandfields was identified as the most suitable area.

A detailed Neighbourhood Renewal Assessment (NRA) study was undertaken. This study included a detailed house condition and energy efficiency survey including external surveys to all the 1038 properties in the area, and 300 internal surveys. An option appraisal exercise identified the most suitable option as retaining and improving the ageing private housing stock with the primary objective of improving the poor thermal efficiency standards of these homes through solid wall insulation, cavity wall insulation, loft insulation and other energy efficiency measures.

The findings of the Sandfields house condition survey found :

97% of properties are pre1919 solid wall stone constructed terraced thermally hard to treat properties.

Housing Health and Safety Rating System Category 1 failure rate of 22%, compared to a Swansea and English House Condition average of 15%.Of the Category 1 hazards, 6.7% were attributable to Excess Cold.

Thermal comfort failure rate of 17%, compared to a Swansea average of 10%, and English House Condition average of 9%.

Average SAP rating of 50, EPC band E, significantly below the national comparator of 57 band D. The proportion of properties with SAP rating above 68% is only 0.4% in Sandfields, compared to 14.8% nationally. The proportion of properties in bands E & F (SAP rating 21-54) is 67.2%, compared to 34.4% nationally. These figures illustrate clearly the generally low standard of energy efficiency of the housing in Sandfields at the time of the survey.

42% of properties fail the Decent Homes standard, compared to a Swansea average of 22%, and English House Condition average of 24%.

Disrepair failure rate of 15%, compared to a Swansea average of 6%, and English House Condition average of 5%.

Sandfields is identified as being within Zone 4 (Very Severe) by the UK Zones Exposure to Driven Rain register. This means that homes in this area are subject to severe rain and weather conditions which further exacerbates problems of poor housing conditions and thermal efficiency within these homes and for occupiers.

Energy Performance Certificate surveys and Occupancy Assessments carried out in the area have found that a typical 2 bedroom mid terrace dwelling with 3 occupants in Sandfields had an :

- Energy performance before works – E Rating
- Energy performance after (solid wall insulation and other measures) - D rating, with an estimated annual fuel bill saving of over £300 per year.

Thermographic surveys of a sample of properties was undertaken of existing properties to illustrate their heat loss. These pictures illustrate a significant heat loss in properties through their external building fabric.

To deal with these thermal efficiency and housing condition problems, a programme of improvements to properties was proposed and include :

- External Wall Insulation EWI and associated energy efficiency measures works to all properties within the Renewal Area boundary , 1038 solid wall stone constructed pre1900 terraced dwellings cross tenure.
- Loft Insulation to selected properties needing this measure cross tenure.
- Boiler Replacement to selected properties needing this measure cross tenure.

This scheme will target the thermal improvement of 60 properties to receive External Wall Insulation and other energy efficiency measures, as a standalone Welsh Government Warm Homes Arbed branded project.

This will not be a typical off the shelf External Wall Insulation scheme. We will use an enhanced specification using high quality building products and have worked with suppliers to produce robust details to address the problems identified by the BRE and others with regard External Wall Insulation works, in particular cold bridging / condensation problems, these include :

- 'EWI Pro' gutter / eaves carrier system where eaves have no overhang.
- Window / door openings reveals & heads insulation using 'aerogel' insulation technology, with render over.
- Insulating existing masonry cills using a combination of EPS insulation to nosing and aerogel insulation to cill surface with render over.
- Covercills to concrete or plastic cills incorporating aerogel insulation underneath.
- Projecting plinths to front elevation receiving insulation to pavement level, recessed plinths to rear receiving insulation to rear yard levels.
- Use of 'Compacfoam' high density insulated loadbearing pattress fixing block system, and other insulated external wall fixing products.
- Provision of Nuaire 'drimaster' positive ventilation systems to properties receiving EWI.
- SPS Envirowall Granomin textured render finishes in variety of pastel colours to front elevations as an alternative to the basic dash render systems.

Scheme Delivery Proposals

- It is proposed this scheme will see 60 properties as listed in the bid property schedule receiving External Wall Insulation and other energy efficiency measures.
- The blocks of properties proposed for this scheme fall into the Castle 4 & 8 LSOA and 20% most deprived income domain.
- The blocks of properties proposed for the scheme are :
 - Block 51 : 17-26 Vincent Street
 - Block 52 : 1-8 Western Street
 - Block 55 : 104-115 Western Street
 - Block 56 : 95-103 Oxford Street
 - Block 57 : 42-57 Vincent Street
 - Block 61 : 28-36 William Street
 - Block 62 : 66-70 Vincent Street
 - Block 63 : 27 – 39 Vincent StreetFurther blocks can be released if additional properties are needed to meet target numbers.

The City & County of Swansea as project manager will ensure the following in taking

a whole house approach and ensuring the correctness of technical measures by :

- An EPC and occupancy assessment will be carried out on each property included in the scheme will take place to calculate the estimated improvement in EPC rating, and reduction in fuel bills, and assessment of means tested benefits and eligibility for other funding programmes such as boiler replacements via NEST.
- Thermographic surveys of each property to illustrate the heat loss of the property before and after the works have been completed. The Council's appointed Energy Officer and applicant will be able to view pictures online and use the online tool to give a guide on what the benefits could be in terms of energy and money saved on measures installed. This would be part of the 'sign up' process. The picture will show the effectiveness of the EWI and act as a quality assurance tool, picking up any defects to safe guard as well as inform interested parties and serve to reassure owner, Council and contractor..
- Confirmation of funding (additional to Welsh Government funding) that can be levied into this scheme, eg council funding and ECO.
- Full mapping of pre and post improvement energy efficiency for individual properties,
- Opportunities for additional energy efficiency measures (e.g. Solar PV installations)
- Full technical surveys undertaken at properties by experienced Council surveyors to ensure measures are appropriate and will also undertake; EPC, EWI guarantees, Asbestos surveys .
- Preparing a full suite of robust technical details to mitigate risk of cold bridging and condensation when installing External Wall Insulation.
- Quality will also be maintained as part of the ECO compliance processes undertaken, including a full Quality Assurance process.

The scheme will be Project Managed by the Council's team of qualified and experienced Surveyors in this field. This will ensure close control of the schemes in terms of quality, duration, cost , health and safety, and using our well established local supply chain.

Procured building contracts within the scheme will include social benefit clauses, including provision for 50 targeted recruitment and training weeks and the requirement for the supply chain to support local community projects. These projects have already been scoped and shortlisted by the local community steering group and are ready to commence if this bid is successful. The schemes include provision of labour / materials for renovation of a local community veg growing visitors / users centre, sponsorship of community away day trips for vulnerable members of the community plus school construction safety talks.

A number of community events have taken place previously to showcase to residents in the area the External Wall Insulation and associated works designs, specification of works proposed, with suppliers attending to brief residents on the products being used. These events have been very well attended.

The City & County of Swansea has already engaged with interested residents. Over 30 residents have already received a technical survey. This External Wall Insulation

scheme is ready to proceed once funding is secured. The surveys already completed will be added to from the selected blocks of properties if this bid is successful. Many of these residents have already provided us with their contact details and are on a waiting list ready to be visited by our in-house caseworkers.

Further interested households will be sign posted via our newsletter, letters and events to contact our in-house team. Residents will receive a visit from a surveyor and EPC assessor who will carry out a detailed survey of the property to determine the scope of works needed. A schedule of proposed work will be prepared with details of the works proposed for the resident to confirm if they wish to proceed.

A community event will be arranged to brief residents on this proposed WG Warm Homes Arbed project, the designs, specification and products to be used.

Independent technical appropriateness surveys by a Chartered Surveyor will be arranged for a sample of properties within the scheme prior to commencement works to corroborate the energy measures identified in the Council's technical surveys, EPCs and Occupancy assessments are appropriate in these circumstances.

During the surveying and installation process we will ensure the Council's appointed Energy Officer will provide one to one advice on energy advice, behaviour change, energy switching. The energy officer will be a permanent point of contact for the duration of the scheme and will be NEA Level 3 Energy Awareness qualified or equivalent with extensive experience of engagement and advice. The Energy Officer will arrange home visits with each resident to discuss the holistic package of savings and advice available, including establishing what the applicant has used in regard to energy in the previous year. Advice will be given on the most efficient way to use their property, benefits of measures being installed and monitor their energy usage going forward to show energy savings and ongoing guidance for a predetermined time.

At the end of the scheme and on completion of each property, the resident will be provided with a handover pack detailing the system guarantees, after-care guidance for the system installed. The contractor will remain the main point of contact for a year after the scheme to answer any queries or concerns regarding installations. The principle contractor will be a member of the Considerate Constructors Scheme.

A full complaints procedure is in place for this project. In the first instance, the contractor will be expected to resolve any issues. Thereafter, the City & County of Swansea has robust customer care arrangements in place. Following completion of work, each resident will be contacted to complete a short customer satisfaction survey, this feedback will be reviewed for lessons learned.

We will engage partners including contractors and suppliers with suitable and significant experience in traditional solid stone terraces energy measures and repairs retrofit works. Sandfields properties are solid stone traditional terrace properties. As such they are eligible for ECO funding. We estimate that the properties in Sandfields will yield in the region of 23 tonnes per property.

Project Management

The proposed scheme will be delivered by the Council's in-house team. Below is the Project Management Structure for delivery :

Mark Wade / Darren Williams	Project Sponsor	Swansea CC
Patrick Holcroft	Energy Coordinator	
Housing Renewals Team	Project Manager	
TBC	Contract Director	Swansea CC Framework Contractor
TBC	Site Manager	
TBC	Scheme Administrator	
TBC	Delivery Manager	Delivery, ECO, Quality, Behaviour and Advice Services Contractor
TBC	Support Manager	
TBC	Contract Surveyor	
TBC	Behaviour/Income & community engagement Officer	
TBC	ECO & Compliance Officer	
TBC	Health, Safety & Environment Officer	
TBC	Community Benefit Measurement Officer	City & County of Swansea
TBC	Business, Employment and Training Support	
CCS Housing Renewals Team	Clerk of Works	City & County of Swansea
EPC & Asbestos Surveying	EPC & Asbestos Surveying	Framework SME Contractor
TBC	ECO & Quality Compliance	ECO funding

The City & County of Swansea has already procured a framework of residential contractors which will allow swift commencement in the summer of 2017. We will appoint a suitably qualified and experienced organisation as being responsible for ECO compliance. The Council's Beyond Bricks and Mortar team will co-ordinate the completion of the Value Wales Community Benefit Measurement Tool and actions contained within this. They will further provide data to evidence the social value of the investment made in terms of targeted recruitment training and added community benefits, including the provision of case studies.

We will ensure that the project management arrangements are maintained by;

- A clear project delivery plan that sets out;
 - Customer engagement targets and methodology,
 - Key surveying requirements and targets,
 - OJEU compliant framework of Contractors and Suppliers detailing technical requirements, capacity to deliver within timescales, expertise and approach to customer care,

- A Delivery Plan that demonstrates project completion within the key timescale of March 2018, with outline project plan and key stages of delivery milestones shown below and in Appendix 1.

Activity	Finish
Submit bid to Welsh Government	14.2.17
Welsh Government award bids	3.3.17
Continue householder engagement, complete further applications and technical surveys.	28.4.17
Prepare and issue tender	5.5.17
Tender Award	16.6.17
Contract mobilisation / preparatory works	30.6.17
Scheme works commencement	3.7.17
Scheme final Inspection / certification	30.3.18
Final reports / guarantees collation	6.4.18

- We will put in place a project group that will include key personnel from City & County of Swansea as Client and Project Managers, Framework Contractors, H&S representatives, suppliers and ECO compliance agents. It is anticipated that these meetings will be held on a monthly basis.
- Monthly project highlight reports in an agreed format that sets out progress made, areas of concern and matters requiring further assistance (e.g. Planning, Highways, POVA etc.) Budget control, quality assurance and customer/resident management.
- All CDM and Health & Safety requirements for the delivery of the scheme will be managed by the Contractors Project Design team.

In relation to capacity to deliver this scheme, we will ensure our Contractors have the management and delivery structures in place to ensure delivery of this scheme on time, in budget and to a high quality.

We will monitor quality of installations using the following :

- There will be a dedicated in-house Project Manager in place for this scheme, to ensure quality, delivery, costs targets are achieved and an inspecting officer monitoring installation work .
- Framework Contractors have all required accreditations (e.g. PAS2030, System Holder accreditations, MCS, heating and electrical qualifications and all Health & Safety certifications) in place;
- In working with ECO agent / utility provider as the providers of ECO funding, we will be incorporating their Quality Assurance process as a further means of maintaining consistently high standard and Health & Safety compliance,
- The appointed System Supplier will carry out regular technical and quality checks on properties at key stages of installation. All Installers will be fully accredited with the System Suppliers quality and competence requirements,
- There will be a full guarantee in place with the Solid Wall Insulation Guarantee Agency (SWIGA) or equivalent. The process required in achieving these guarantees involves a 5-stage inspection and sign off process,
- A complaints process in place that readily allows residents to escalate any

complaints or concerns they may have through to Senior Management within the Framework Contractor Teams. Compliments and Complaints will also be a set agenda item for monthly progress meetings and highlight reports

In order to provide more empirical data and analysis of the impact of Welsh Government Warm Homes Arbed Projects, we will monitor 10-15% of households in order to assess the impact of the physical measures installed. We will secure their agreement in order that their energy providers may pass on details of their energy consumption prior to installation of measures and compared to usage post installation of measures. This information will then be presented to the Welsh Government Warm Homes Project Team, and will also be used to further inform our work in assisting households to reduce their energy consumption.

Section C – Property Details

PROJECT DESIGN – Please also fill out accompanying Excel spreadsheet

See Project Description scheme delivery and project management proposals above for further delivery detail.

- External Wall Insulation and associated works to 60 properties within the blocks of properties at :
 - Block 51 : 17-26 Vincent Street
 - Block 52 : 1-8 Western Street
 - Block 55 : 104-115 Western Street
 - Block 56 : 95-103 Oxford Street
 - Block 57 : 42-57 Vincent Street
 - Block 61 : 28-36 William Street
 - Block 62 : 66-70 Vincent Street
 - Block 63 : 27 – 39 Vincent Street

- Works will include External Wall Insulation EWI works to the pre1919 solid wall construction terrace properties listed above , average EPC rating of E (45-50) , associated energy efficiency measures and energy advice.

- Unit cost of £12,000 for EWI and associated works including works ancillary fees such as asbestos survey reports, EPCs, building regulations, highways permits, independent sample technical surveys, and project management fees for EWI and associated works allowance, higher cost figure to account for the whole house insulation approach and enhanced specification providing robust details to avoid cold bridging issues. Energy advice / behaviour change / measures monitoring officer costs included in bid. The improved specification has increased unit costs to a figure higher than other standard EWI schemes delivered elsewhere. This is acknowledged but we feel this provides a quality of scheme that will stand the test of time.

Measure	Unit Cost	Number of units	Total cost	% of cost going to Welsh manufacturers / contractors / workers
External Wall Insulation	£12,000	60	£720,000.00	100%
Loft Insulation (tbc)	£525	40	£21,000.00	100%
Heating Controls	£0.00	0	£0.00	100%
Boiler Change (referrals to NEST)	£0.00	0	£0.00	100%
Behaviour Change	£133.33	60	£8,000.00	100%
Total			£749,000.00	

FUNDING PROFILE	
Funding source	Total contribution
ECO	£35,000.00
Other leveraged funding - Council	£50,000.00
Amount of grant requested from Welsh Government	£664,000.00
Total	£749,000

- Carbon savings forecast of 23 tonnes per property, 1380 tonnes across the whole scheme.
- SAP / EPC improvement forecast from EPB band E to band D.
- Number of fuel poor / low income households supported forecast to be 15. We will also ensure that, by utilising the expertise of our Contractors, we will allow every opportunity to both reduce outgoings and maximise income for participants in the scheme. As detailed, we estimate that each household fully participating will see a net benefit in excess of £1,000 per annum.
- We will further appoint a suitably qualified and experienced organisation to undertake ECO compliance and energy advice activities, including;
 - Securing and processing all ECO claims and payments. We will expect to achieve a minimum rate of **£23/tonne** for these works,
 - Engagement for advice to householders in order to provide energy advice, behaviour change advice, supplier switch assistance and income maximisation support to all households participating.
- Community Benefits – working with Beyond Bricks & Mortar team to deliver 50 targeted recruitment and training weeks and community projects support, and completion of the Value Wales Community Benefit Measurement Tool.

TO APPLY

If you wish to bid for this funding, please complete this form and return it by close of play on **Friday 10th February** to: ecomailbox@wales.gsi.gov.uk.

Both the application form and the accompanying project plan must be completed

Background Papers:

Sandfields Renewal Area programme of works map.

Sandfields EWI schemes tender specification

Sandfields EWI schemes standard details.

Sandfields Newsletters Issue 1 & 2.